

AMENDMENTS TO THE CLAIMS

Listed below are the changes made to the claims, in which the insertions are underlined (e.g., insertions) and deletions are shown by strikethrough or double brackets (e.g., ~~deletions~~ or ~~[[deletions]]~~). The listing of claims below replaces all prior versions and listings of claims in the application. The list of claims presents each claim with its respective status shown in parentheses.

1-24. (Canceled)

25. (Currently Amended) A method of providing percutaneous access, said method comprising:

making an incision through skin;

inserting a guidewire through the incision in the skin and into or through the renal collection system,

percutaneously inserting an elongate tubular structure through the incision in the skin and over the guidewire and into the renal collection system, the elongate tubular structure comprising a distal region, a proximal region, and a tapered region between the distal region and the proximal region, the distal region having a first, folded, smaller cross-sectional profile and the proximal region having a second, greater cross-sectional profile over the guidewire and into the renal collection system;

~~expanding said elongate tubular structure radially around its longitudinal axis from said first, smaller cross-sectional profile to a second, greater cross-sectional profile;~~

inflating a balloon that is positioned within an interior lumen of said elongate tubular structure to expand and unfold said distal region of said elongate tubular structure radially around its longitudinal axis from said first, smaller cross-sectional profile to said second, greater cross-sectional profile; and

releasing the elongate tubular structure from a constraining tubular jacket, the constraining tubular jacket sharing the same longitudinal axis as the elongate tubular structure, wherein releasing the elongate tubular structure from the constraining tubular jacket comprises tearing said tubular jacket along a perforation; and

removing said balloon from said distal region of said elongate tubular structure to open the interior lumen in said elongate tubular structure, the interior lumen open to an external environment outside the skin on its proximal end and open to the renal collection system on its distal end.

26. (Canceled)

27. (Currently Amended) The method of Claim 25, wherein the inflating a balloon step is accomplished using a balloon catheter positioned within the interior lumen of the elongate tubular structure body.

28. (Currently Amended) The method of Claim 25, wherein the inflating a balloon step comprises radially expanding said balloon.

29.-46. (Canceled)

47. (Currently Amended) A method of providing percutaneous access, said method comprising:

making an incision through skin;

inserting a guidewire through the incision in the skin and into or through the renal collection system,

percutaneously inserting an elongate tubular structure through the incision in the skin and over the guidewire and into the renal collection system, the elongate tubular structure comprising a distal region, a proximal region, and a tapered region between the distal region and the proximal region, the distal region having a first, folded, smaller cross-sectional profile and a beveled distal tip, the proximal region having a second, greater cross-sectional profile over the guidewire and into the renal collection system, the tubular structure having a beveled distal tip;

~~expanding said elongate tubular structure radially around its longitudinal axis from said first, smaller cross-sectional profile to a second, greater cross-sectional profile;~~

inflating a balloon that is positioned within an interior lumen of said elongate tubular structure to expand and unfold said distal region of said elongate tubular structure from said first, smaller cross-sectional profile to said second, greater cross-sectional profile; and

releasing the elongate tubular structure from a constraint, the constraint sharing the same longitudinal axis as the elongate tubular structure, wherein releasing the elongate tubular structure from a constraint comprises tearing said constraint along a perforation; and

removing said balloon from said distal region of said elongate tubular structure to open the interior lumen in said elongate tubular structure, the interior lumen open to an external environment outside the skin on its proximal end and open to the renal collection system through said beveled distal tip.

48. (Canceled)

49. (Currently Amended) The method of Claim 47, wherein the inflating a balloon step is accomplished using a balloon catheter positioned within the elongate tubular structure body.

50. (Currently Amended) The method of Claim 47, wherein the inflating a balloon step comprises radially expanding said balloon.

51.-59. (Canceled)

60. (Currently Amended) A method of providing percutaneous access, said method comprising:

making an incision through skin;

inserting a guidewire through the incision in the skin and into or through the renal collection system,

percutaneously inserting an elongate tubular structure over the guidewire and into the renal collection system, the elongate tubular structure comprising a distal region, a proximal region, and a tapered region between the distal region and the proximal region, the distal region having a first, folded, smaller cross-sectional profile and the proximal region having a second, unfolded, greater cross-sectional profile over the guidewire and into the renal collection system;

~~expanding said elongate tubular structure radially around its longitudinal axis from said first, smaller cross-sectional profile to a second, greater cross-sectional profile;~~

inflating a balloon within said distal region of said elongate tubular structure to expand and unfold said distal region of said elongate tubular structure from said first, smaller cross-sectional profile to said second, greater cross-sectional profile; and

releasing the elongate tubular structure from a constraining tubular jacket, the constraining tubular jacket sharing the same longitudinal axis as the elongate tubular structure, wherein releasing the elongate tubular structure from the tubular jacket comprises tearing said tubular jacket along a score line; and

removing said balloon from said distal region of said elongate tubular structure to open a lumen in said elongate tubular structure, the lumen open to an external environment outside the skin on its proximal end and open to the renal collection system on its distal end.

61. (Canceled)

62. (Currently Amended) The method of Claim 60, wherein the inflating a balloon step is accomplished using a balloon catheter positioned within the elongate tubular structure body.

63. (Currently Amended) The method of Claim 60, wherein the inflating a balloon step comprises radially expanding said balloon.

64.-71. (Canceled)

72. (Currently Amended) A method of providing percutaneous access, said method comprising:

making an incision through skin;

inserting a guidewire through the incision in the skin and into or through the renal collection system,

percutaneously inserting an elongate tubular structure through the skin over the guidewire and into the renal collection system, the elongate tubular structure comprising a distal region, a proximal region, and a tapered region between the distal region and the proximal region, the distal region having a first, smaller cross-sectional profile and a beveled distal tip, the proximal region having a second, greater cross-sectional profile over the guidewire and into the renal collection system, the tubular structure having a beveled distal tip;

~~expanding said elongate tubular structure radially around its longitudinal axis from said first, smaller cross-sectional profile to a second, greater cross-sectional profile;~~

inflating a balloon within said distal region of said elongate tubular structure to expand said distal region of said elongate tubular structure from said first, smaller cross-sectional profile to said second, greater cross-sectional profile; ~~and~~

releasing the elongate tubular structure from a constraint, the constraint sharing the same longitudinal axis as the elongate tubular structure, wherein releasing the elongate tubular structure from the constraint comprises tearing said constraint along a score line; and

removing said balloon from said distal region of said elongate tubular structure to open a lumen in said elongate tubular structure, the lumen open to an external environment outside the skin on its proximal end and open to the renal collection system through said beveled distal tip.

73. (Canceled)

74. (Currently Amended) The method of Claim 72, wherein the inflating a balloon step is accomplished using a balloon catheter positioned within the elongate tubular structure body.

75. (Currently Amended) The method of Claim 72, wherein the inflating a balloon step comprises radially expanding said balloon.

76.-82. (Canceled)

83. (Currently Amended) The method of Claim 25, further comprising the step of separating said tubular jacket from said elongate tubular structure.

84. (Currently Amended) The method of Claim 47, further comprising the step of separating said constraint from said elongate tubular structure.

85. (Currently Amended) The method of Claim 60, further comprising the step of separating said tubular jacket from said elongate tubular structure.

86. (Currently Amended) The method of Claim 72, further comprising the step of separating said constraint from said elongate tubular structure.

87. (Currently Amended) A method of providing percutaneous access, said method comprising:

making an incision through skin;

inserting a guidewire through the incision in the skin and into or through the renal collection system,

percutaneously inserting an elongate tubular structure through the incision in the skin over the guidewire and into the renal collection system, the elongate tubular structure comprising a distal region, a proximal region, and a tapered region between the distal region and the proximal region, the distal region having a first, folded, substantially continuous, smaller cross-sectional profile, the proximal region having a second, unfolded, greater cross-sectional profile over the guidewire and into the renal collection system, wherein in the first, folded, substantially continuous, smaller cross-sectional profile the elongate tubular body forms two longitudinally extending creased outer sections that lie on a perimeter of the folded tubular body and facing each other and two longitudinally extending creased inner sections that lie within the folded tubular body and face away from each other;

~~expanding said elongate tubular structure radially around its longitudinal axis from said first, smaller cross-sectional profile to a second, greater cross-sectional profile;~~
and

inflating a balloon positioned within an interior lumen of said distal region of said elongate tubular structure to expand and unfold said distal region of said elongate tubular structure from said first, folded, substantially continuous, smaller cross-sectional profile to said second, unfolded, greater cross-sectional profile; and

removing said balloon from the interior lumen of said distal region of said elongate tubular structure to open the interior lumen in said elongate tubular structure, the interior lumen open to an external environment outside the skin on its proximal end and open to the renal collection system on its distal end.

88. (Currently Amended) The method of Claim 87, wherein the inflating a balloon step is accomplished using a balloon catheter positioned within the elongate tubular structure body.

89. (Currently Amended) The method of Claim 87, wherein the inflating a balloon step comprises radially expanding said balloon.

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90. (Canceled)